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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,717	11/25/2003	Alan L. Kovacs	PD-00W124A	5759

7590 05/04/2004

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EXAMINER	
ZIMMERMAN, JOHN J	

ART UNIT	PAPER NUMBER
1775	

DATE MAILED: 05/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/721,717	KOVACS ET AL.	
	Examiner	Art Unit	
	John J. Zimmerman	1775	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-20 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-20 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Complete copy of action mailed 5/4/2004 (previous scan incomplete)

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 25 November 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 20031125.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

FIRST OFFICE ACTION

Amendments

1. No preliminary amendments have been received in this application as of the time of the mailing of this Office Action. This application is in the form in which it was originally filed on November 25, 2003. Original claims 1-20 are pending in this application.

Information Disclosure Statement

2. The information disclosure statement filed with this application has been considered. An initialed form PTO-1449 is attached to this Office Action.

Specification

3. The disclosure is objected to because of the following informalities: The status of the parent application should be updated in paragraph [0001] of the specification. Appropriate correction is requested.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686

F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,* 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-20 are provisionally rejected under the judicially created doctrine of double patenting over claims 1-16 of copending Application No. 10/210,240. The claims of this application and the claims of the copending application both require an oxidation preventing layer of palladium on a layer of titanium getter (e.g. see claim 8 of the copending application) as well as a frame component for a transmit/received module configured to support a plurality of electrical connectors (e.g. see claim 14 of this application and claim 1 of the copending application), an electrically conductive layer comprising aluminum (e.g. see claim 4 of the copending application and claim 19 of this application) and a synthetic resin dielectric (e.g. claim 14 of this application and claims 1-16 of the copending application). The component also may include GaAs semiconductor material (e.g. see claim 6 of the copending application and claims 1 and 7 of this application). While the claims of the copending application may not specify the mass or the thickness of the titanium layer, in view of its function as a getter, it would have been obvious to one of ordinary skill in the art at the time the invention was made to apply enough titanium to fulfill the gettering function. There is no patentable distinction between the sets of claims of this application and the set of claims of the copending application. This is a provisional double patenting rejection since the conflicting claims have not yet been patented.

Allowable Subject Matter

5. The claims would be allowable if a terminal disclaimer is filed to the copending application. While the prior art of record contains elements of the pending claims, the prior art has deficiencies. Saito (U.S. Patent 6,110,808) is very relevant to the Ti/Pd getter construction of the subject matter of the pending claims but has deficiencies regarding the pending claims. Saito discloses applying a layer of palladium to a titanium getter layer in packaging materials employed in hermetically-sealed GaAs integrated circuitry (e.g. see column 3, lines 13-33; column 6, lines 13-29; column 7, lines 9-36 and lines 61-65). Saito discloses that further conductive metallization layers of nickel and titanium are part of the container (e.g. see Figure 1) and a further conductive aluminum layer may be included as part of the assembly (e.g. see column 5, lines 45-51). Even though Saito may not disclose that the additional conductive metal layers may act as electromagnetic interference shielding, the examiner notes that this property would be inherent to the conductive metal layers and it is not necessary that Saito intend or even recognize this function. But, Saito is deficient in that the pending claims require at least one interconnect frame and EMI shielding for internal signals. The Saito reference does not does not disclose or suggest a manner for accomplishing these requirements and there is no motivation to modify Saito to meet these requirements. Likewise, Lee (Japanese publication 2001-168240) is particularly relevant since Lee discloses that palladium (e.g. 300-3000) coated titanium getter layers is a solution to the prior art problems created by the presence of hydrogen in hermetically sealed GaAs integrated circuit packages (e.g. see paragraphs [0009], [0015], [0016]). The palladium layer is vacuum deposited sequentially during a single coating run to prevent oxidation of the titanium (e.g. see paragraph [0018]). Lee uses a titanium foil, but understands

that deposited titanium is an art recognized method of supplying titanium also (e.g. see paragraph [0016]). Bedinger (EP 0837502) also discloses this type of Ti/Pd combination (e.g. see column 2, last paragraph). Lee and Bedinger suffer from the same deficiencies as Saito, however, in that there is no motivation to modify these references to meet the claimed requirements of an interconnect frame and EMI shielding of internal signals. While Okamura (Japanese publication 8-250615) and Yamanaka (Japanese publication 4-151858) are relevant because they show that conductive metallization for electromagnetic shielding in integrated circuit packages is conventional in the art (e.g. see the abstract and figures of each reference), there is no motivation to modify the references to meet the frame and internal shielding requirements of the pending claims while also combining these references with the Ti/Pd getter layering found in the prior art. It is noted that the variable "T_L" is required in determining the required mass "M_{Ti}" of claims 2, 8 and 15. The value of "T_L" is defined in the claims as "a specified lifetime" of the device. No actual quantified specified lifetime is actually required by the claims for this variable, but this does not render these claims indefinite for the following reasons: The examiner notes that any "specified lifetime" can be assigned to a device and therefore for the purposes of claim interpretation, the variable "T_L" can be any value essentially larger than zero. [The examiner notes that zero cannot be assigned to the variable "T_L" since the mass of titanium in the layer must be larger than zero in order to meet the requirements of having a titanium layer in the independent claims.]

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John J. Zimmerman whose telephone number is (571) 272-1547. The examiner can normally be reached on 8:30am-5:00pm, M-F. Supervisor Deborah Jones can be reached on (571) 272-1535. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

John J. Zimmerman
Primary Examiner
Art Unit 1775

jjz
April 14, 2004